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Salir Adelante: Social capital and resilience during the Covid-19 pandemic in Argentina

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ABSTRACT

The Covid-19 pandemic has stimulated new appraisals of how social cohesion, including neighborhood-level social capital, fosters resilience in the face of crisis. Several studies suggest better health outcomes in neighborhoods with higher level of social capital, in general and during the pandemic. Building on a growing body of research which suggests that those who live in close-knit neighborhoods have fared better during the pandemic, this article analyzes how social capital influences individual and collective perceptions and attitudes about the experiences of the Covid-19 pandemic in Tucumán, Argentina. To assess this question, we used a mixed-methods approach, combining focus groups, semi-structured interviews, and an online survey (n = 701 respondents) conducted in September 2021. We find widespread experiences of resilience in response to the Covid-19 pandemic, in spite of difficult socioeconomic conditions and perceived poor government performance. Results from logistic regression analysis indicate that perceptions of high neighborhood social capital are associated with more positive outcomes in many dimensions, including personal resilience, ability to cope with uncertainty, perceptions of community solidarity, and reported compliance with public health measures. We further argue that conceptualizations of social cohesion need to be adjusted to local or national-level cultural norms to accurately capture the experience of countries of the Global South.

1. Introduction

The Covid-19 pandemic has stimulated new appraisals of what holds societies together during times of extreme and widespread crisis. Whether in social science research or media commentaries, the pandemic has led us to grapple with fundamental questions about social cohesion, social capital, community resilience, coping, sacrifice for the greater good, leadership, and governance (Jewett et al., 2021; Klein, 2022; Zakaria, 2021). In spite of its global character, the pandemic has unfolded in different ways among countries, leading to wide recognition that national culture influences the success of pandemic control efforts, via mechanisms like deeply embedded social norms, prioritizing collective welfare over individual interests, that can be mobilized effectively in the pandemic crisis (Gelfand et al., 2021). A growing body of research, both empirical and theoretical, suggests that societies with high levels of social cohesion have fared better during the pandemic (Boyd and Davis, 2021; Drury et al., 2021; Jackson and Bradford, 2021; Reicher and Bauld, 2021; Reicher and Stott, 2020; Ritchie and Gill, 2021).

Yet social cohesion can be hard to define and measure (Bottoni, 2018). Jewett et al. (2021) define it as "the degree of social connectedness and solidarity between different community groups within a society, as well as the level of trust and connectedness between individuals and across community groups" (p. 325). Social capital can be considered one of many dimensions of social cohesion. Aldrich and Meyer (2015, p. 256), following Pierre Bourdieu, define it as "the aggregate of the actual or potential resources that are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition." Accepted typologies of social capital include "bonding" (tight, emotionally close bonds, especially among family and kin networks), "bridging" (ties among loosely connected people across social difference), and "linking" (connections of ordinary people to those who hold power) types (Aldrich and Meyer, 2015). Social capital is considered a key resource of resilience, lessening the impact of stressors in people's lives, for example, in disaster recovery (Jewett et al., 2021; Laurence and Kim, 2021).

Recent research from geography and social epidemiology confirms the importance of social capital on health outcomes at the neighborhood

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level. The physical and social infrastructure of a neighborhood are key to its ability to affect its residents' health and well-being (Miao et al., 2021; Mohnen et al., 2011). Several studies suggest better health outcomes during the pandemic in neighborhoods with higher levels of social capital (Borkowska and Laurence, 2021; Laurence and Kim, 2021; Miao et al., 2021; Ransome et al., 2021; Pierce et al., 2021).

Despite advances in research on social capital and social cohesion during the pandemic, we see gaps that could be addressed. First, studies on how social capital impacts the health of neighborhoods during the Covid-19 pandemic often fail to explain how social capital translates into behaviors and attitudes that enable coping and resilience. This is due, in part, to a failure to integrate qualitative data on the subjective experience of the pandemic to explain results derived from highly structured surveys. Second, much of the social research on the pandemic treats social capital instrumentally, as a means to the end of controlling the pandemic; in other words, the main question is how the resource of social capital can be mobilized to support public health measures (Dincer and Gillanders, 2021; Hao et al., 2021; Makridis and Wu, 2021; Pitas and Ehmer, 2020). Although we are interested in the issue of compliance with public health measures, we believe that a narrow public health framing fails to capture the broader lived experience of the pandemic.

A third gap is that the preponderance of research on this subject (in fields like geography, political science, sociology, and social psychology) has focused on (relatively) politically stable and affluent liberal democracies of North America and Europe. Less attention has been given to societies of the Global South (including Latin America), reflecting a geographic bias of social research on the pandemic, generally. Latin American countries presented socio-economic conditions (e.g., the preponderance of informal labor and weak social safety nets) that made them especially vulnerable to the Covid-19 pandemic (CEPAL, 2020; García et al., 2020). Our study considers the effects of the pandemic in a country, Argentina, already facing deep economic, political, and social crises even before the pandemic began.

Finally, the portrayal of cultural characteristics of countries, as relates to social cohesion and social capital during the pandemic, can be confusing. In a widely reported, cross-national comparative study, Gelfand, et al. (2021) argue that "tight" societies—which have social norms that favor submission to authority, and collective welfare over individual rights—have been more successful at implementing pandemic control measures. Conversely, "loose" societies, which include most Latin American countries, have not. However, by other accounts, Latin American countries have been quite diligent and successful in implementing pandemic control measures (e.g. social distancing, mask-wearing, vaccine uptake), as exemplified by very high levels of vaccine uptake, once those vaccines became available (Galarraga Gortázar et al., 2022; Lister, 2021). Therefore, framing the Covid-19 pandemic as a sociopolitical phenomenon that transcends classification as a public health crisis, we believe that a more careful appraisal of what constitutes social cohesion—including different kinds of social capital and political engagements of citizens, and how these "ingredients" for cohesion are contextual and place-specific—might be in order.

To address such gaps, we analyze the effect of neighborhood social capital on perceptions of the experience of the Covid-19 pandemic in the metropolitan area of Tucumán, Argentina. As part of a larger ongoing project addressing the social impacts of the pandemic in Tucumán, we use a mixed-methods approach, which includes focus groups, semi-structured interviews, and an online survey, conducted from June to September of 2021. We find widespread experiences of resilience in response to the Covid-19 pandemic. Results from statistical analysis of survey results (including logistic regression analysis controlling for demographic and social variables) indicate that, in spite of difficult socio-economic conditions and perceived poor government performance, perceptions of neighborhood social capital increased the capacity for resilience. We further argue that conceptualizations of social cohesion

need to be adjusted to local or national-level cultural norms to accurately capture the experience of countries of the Global South.

2. Tucumán, Argentina: Structural conditions and health

Argentina has suffered from repeated social, economic, and political crises, marked by prolonged economic recession, political polarization, and crises of poverty and malnutrition even before the pandemic (Cordero and Cesani, 2021). For our analysis we consider the San Miguel de Tucumán metropolitan area, which comprises the capital city of Tucumán province (San Miguel) and eight surrounding municipalities. It is the fifth-largest metro area in Argentina and the largest urban agglomeration in Northwest Argentina, one that has experienced rapid growth during the last twenty years (Cordero and Cesani, 2020). Similar to many other Latin American cities, growth has been characterized by spatial imbalances that exacerbate socio-spatial segregation, where the most vulnerable and impoverished population groups are located in degraded, disconnected, and environmentally deteriorated areas. The gains of economic growth have been uneven, as roughly one-third of the population lives in poverty (INDEC, 2021). As a mid-sized city in a peripheral region of its country, Tucumán represents a type of Latin American urban area that receives insufficient attention in social and public health research.

Pandemic containment measures at Argentina's international borders (ports of entry) began in February of 2020, and the country registered its first case of Covid-19 on March 3, 2020 in the capital city (Buenos Aires), which led quickly to new protocols of containment, including cessation of activities that could lead to the spread of the virus (cultural and sporting events, cultural spaces, national parks, educational and academic activities). On March 16, the WHO officially declared a global pandemic, and three days later the national government established the Social, Preventive and Obligatory Isolation measures (known by its Spanish acronym, ASPO). The policy was similar to that of many other countries in the "lockdown" stage of the pandemic in early-to-mid 2020, including business and school closures, at-home isolation with the exception of essential activities, social distancing, limits on domestic and international travel, and mandatory mask-wearing. In Tucumán, the first case of Covid-19 was registered on March 19, 2020 but it was not until August of 2020 that spread of the virus within the community was detected. This time lag is important to consider, as the metro area was under strict lockdown for more than a month, followed by somewhat relaxed but still stringent control measures for three more months, without local spread of the virus, even though cases were introduced sporadically from outside the city, which implied the effectiveness, at least for a time, of these strict policies (Fig. 1).

The Covid-19 pandemic occurred in an environment of difficult living conditions in Tucumán. During 2020, 39% of its inhabitants were unemployed or inactive in the labor market, while 42% had an educational level below secondary level (high-school) (Table 1) (INDEC, 2020). Around 12% of the population had substandard housing, 14% of households were located in areas of environmental risk (such as flood-prone areas, or in the vicinity of garbage dumps), and 6% registered critical overcrowding (INDEC, 2020). In addition, a report commissioned during the early phase of the pandemic mentioned the absence of health education, lack of money and resources to purchase food and meet other basic needs, and engagement in the informal economy as important conditions that exacerbated the public health situation (Comisión de Ciencias Sociales de la Unidad Coronavirus Covid-19 del MINCYT-CONICET-AGENCIA, 2020; INDEC, 2020).

3. Materials and methods

The study population was residents of the San Miguel de Tucumán metropolitan area, 18 years and older. Our study employed a mixed-method design with qualitative and quantitative cross-sectional



Fig. 1. Pandemic containment measures during 2020 in the San Miguel de Tucumán metropolitan area. Note: Pandemic containment measures: health checkpoints (A), police checkpoints (B, D, F), spontaneous neighborhood barricades (C, E). Source: Own elaboration based on *La Gaceta* (2022).

Table 1
Demographic profile of Tucumán metro area, 2020

	N	%
Gender		
Male	563	47.35
Female	626	52.65
Age		
18-28 years	404	33.98
29-39 years	313	26.32
40-49 years	294	24.73
50-60 years	178	14.97
Education		
No education	5	0.42
Primary incomplete	58	4.88
Primary complete	194	16.32
Secondary incomplete	246	20.70
Secondary complete	288	24.22
University incomplete	242	20.35
University complete	156	13.12
Occupation		
Employed	729	61.42
Unemployed	122	10.28
Inactive	336	28.31

Note: the demographic profile corresponds to the representative sample (N = 1,189) surveyed during the first quarter of 2020 by the Encuesta Permanente de Hogares (INDEC, 2020).

Source: Encuesta Permanente de Hogares (2020).

approaches. The research was carried out according to international and national agreements on human research. The work protocol was approved by the Research Ethics Committee of the CCT CONICET NOA Sur (N° 03/2021) (see Supplementary Materials).

3.1. Focus groups and semi-structured interviews

During the first stage of the project, in June of 2021, we began with a series of semi-structured interviews and focus groups. Participants in the qualitative phase (n = 20; female = 13; male = 7) were recruited using a convenience sampling approach, snowballing from the research team's network of contacts, prioritizing key informants from health, educational, government, media, and business sectors, along with religious leaders, artists, and informal and domestic workers, which allowed us to capture diverse perspectives and experiences during the pandemic. Focus groups and semi-structured interviews were conducted by a

trained interviewer using videoconferencing tools, due to public health regulations limiting face-to-face contact. The focus groups consisted of two meetings held through a virtual platform, with 15 participants in total. Semi-structured interviews were conducted with an additional five informants, due to challenges in accessing and managing the digital resources necessary for participating in focus groups in virtual mode.

Subsequently, recordings were transcribed and coded in the qualitative analysis software program Atlas.ti, using a thematic analysis method (King and Horrocks, 2010, p. 153). Through this process, around 15 key themes emerged for further, more systematic exploration in a structured survey.

3.2. Online survey

For the second stage, a structured online survey was carried out from September 19–22, 2021, through QuestionPro, an online survey platform. The required minimum sample size was 664, given the estimated size of the population for 2021 (934,197 inhabitants) (Dirección de Estadística de la Provincia- Gobierno de Tucumán, 2021), a confidence level of 99% and 5% margin of error. The link to the survey was disseminated through frequently used social networks (Facebook and Instagram).

This survey included a 50-item questionnaire on the pandemic experience, based on the themes that emerged from the qualitative phase of the study. The main questionnaire items were a series of statements elaborated to capture individual and collective experiences, with a focus on the themes of neighborhood social capital, personal experience of the pandemic, collective response to the pandemic, attitudes about vaccines, and government performance. Most items called for a response on a typical 5-point Likert scale, from "strongly agree" to "neutral" to "strongly disagree." For each respondent, we also collected demographic information, including age, gender, maximum level of education, and employment status.

We were especially interested in understanding if these experiences varied according to perceived neighborhood social capital. We used responses to the prompt, "in my neighborhood we all know each other," as a simple proxy for perceived neighborhood social capital (PNSC). Those who agreed (or strongly agreed) with that statement were classed into the "high" PNSC category; those who were neutral on this statement were classed into a "moderate" PNSC group; and those who disagreed (or strongly disagreed) were placed in the "low" PNSC group. This approach to defining the variable is appropriate because "neighborly" ties and

living in geographical proximity are bases for social capital (Boyd and Davis, 2021). Conceptual studies of social capital in Latin America, in Argentina generally, and in Tucumán specifically, suggest that a sense of a "barrio" identity is high, with a sense of intergenerational belonging, and people are much less geographically mobile during their lifetimes, as compared to, say, the United States (Cosacov, 2017; Dureau, 2004).

Finally, the survey also included one optional, open-ended response, which invited participants to "share an experience or lesson learned during the pandemic." All stages of the study were conducted in Spanish, with translations to English by the authors (see Supplementary Materials for original Spanish version of the survey items).

3.3. Statistical analysis

Quantitative survey results were analyzed using Microsoft Excel and SPSS 25 software. Chi-square tests were used to analyze statistical differences in responses between groups (p value < 0.05). Subsequently, multivariate logistic regression analysis was performed to identify associations in those items that showed significant differences in the previous chi-square test (Table 4: items 3–6, 9, 12, 15, 16, 21, 22). The covariates analyzed were PNSC (high PNSC group [those who agreed, or strongly agreed with the statement "In my neighborhood, we all know each other"] vs. low PNSC), age (measured in years), education (primary education or less, secondary level, and tertiary or higher), and employment (employed, unemployed, inactive).

The open-ended responses from the online survey were also coded using Atlas.ti. We used analytical tools such as code co-occurrence and code-document cross-tabulation iteratively, to generate provisional hypotheses that could be examined more rigorously with analysis of data from all survey participants. We also use quotations from these open-ended responses, along with statements from the earlier phase of interviews and focus groups, to illustrate general points, offer further explanation of associations observed, and to give voice to ideas that might be at odds with more general findings.

4. Results

4.1. Profile of the survey respondents

There were 701 participants with a median age of 36 years (SD: 12, range: 18–60). Table 2 summarizes the demographic profile: in terms of gender, 48.93% of respondents identified as female. Of the 701 survey

respondents, 29% (n = 203) choose to submit a text response to the open-ended question at the end of the survey.

4.2. Personal experiences of the pandemic

In our survey, we asked people to compare their personal situation at that moment retrospectively to the state of things at the beginning of Argentina's experience of the pandemic in March 2020. Table 3 presents a summary of responses to the survey statements (on a Likert scale). Perhaps unsurprisingly, most people did not see any improvement during the pandemic, with only 20.54% in agreement (or strong agreement) that their personal situation had improved (Fig. 2). In open-ended responses, many cited continued financial problems, job loss, mental health issues, and illness and family deaths from Covid-19 as key negatives at the personal level. However, at the same time a majority agreed (or strongly agreed) with the following statements: "I relied on my creativity to solve problems" (81.31%), "I learned to live with the uncertainty that the pandemic brought" (74.47%), "I have more confidence in my ability to solve problems" (64.19%), and "I could move ahead [*salir adelante*] with a positive attitude" (57.63%). Also, 44.37% highlight their participation in supportive (or solidarity) initiatives (Fig. 2) (Table 3, items 2–10).

Compliance with public health measures was framed at the household, neighborhood, and general society levels. We observed that the further we move conceptually from the home to the wider world, the lower the perceived compliance (Table 3, items 11–16). Fig. 3 shows that 90.87% of those surveyed agreed (or strongly agreed) with the statement "In my household we comply with public health measures"; 38.94% agreed (or strongly agreed) with the same statement assessed at the neighborhood level ("In my neighborhood my neighbors comply with public health measures"); and 30.05% agreed (or strongly agreed) that "In general, society complies with public health measures in their daily lives." We note that the survey left the definition of public health measures (*medidas sanitarias*) open and subject to the interpretation of the survey respondent, given the variety of interventions in effect at different moments in the pandemic (e.g. rules about mask-wearing, social distancing, travel restrictions, among others).

Generally, the people we surveyed expressed favorable attitudes towards Covid-19 vaccination (Table 3, items 17–19). More than three-quarters of respondents agreed (or strongly agreed) that getting vaccinated is a civic duty; 67.48% agreed (or strongly agreed) that vaccines can be trusted; and 92.72% professed to be vaccinated or planning to be

Table 2
Demographic characteristics of survey participants: general and by perceived neighborhood social capital group (n = 701).

Variables	General Sample		Perceived Neighborhood Social Capital				chi ²	p-value		
			Presence		Indifferent				Absence	
	N	%	n	%	n	%			n	%
Total	701	100	361	51.49	154	21.96	186	26.53	106.27	0.01
Gender										
Male	357	50.93	186	52.10	78	21.84	93	26.05	0.15	0.93
Female	343	48.93	174	50.72	76	22.15	93	27.11	0.15	0.93
Other	1	0.14								
Age										
18-28 years	224	31.95	101	45.10	52	23.20	71	31.70	6.16	0.04
29-39 years	177	25.25	92	51.97	40	22.59	45	25.42	0.16	0.92
40-59 years	166	23.68	86	51.80	39	23.49	41	24.69	0.51	0.76
50-60 years	134	19.12	82	61.19	23	17.16	29	21.64	6.26	0.04
Education										
Primary	113	16.12	72	63.71	25	22.12	16	14.15	11.68	0.01
Secondary	403	57.49	210	52.10	76	18.85	117	29.03	6.47	0.04
Tertiary and Superior	185	26.39	79	42.70	53	28.60	53	28.64	9.30	0.01
Employment										
Employed	420	59.91	212	50.47	93	22.14	115	27.38	0.51	0.77
Unemployed	107	15.26	61	57.00	19	17.75	27	25.23	1.85	0.39
Inactive	174	24.82	88	50.57	42	24.13	44	25.28	0.67	0.71

Note: n: number of cases, %: prevalence; p: probability value, bold: significant differences. Source: Own data (2021).

Table 3
General pattern of responses to survey (n = 701).

	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
<i>Neighborhood Social Capital</i>					
1. In my neighborhood, we all know each other	18.54	32.95	21.97	22.39	4.14
<i>Personal Impacts of the Pandemic</i>					
2. My personal situation improved	4.28	16.26	28.25	30.67	20.54
3. More confident in my ability to solve problems	23.54	40.66	25.11	8.70	1.99
4. Participated in supportive initiatives	10.56	33.81	28.53	17.12	9.99
5. Learned to live with uncertainty	25.25	49.22	15.26	7.28	2.99
6. Able to move ahead with a positive attitude	21.26	36.38	23.40	12.70	6.28
7. Relied on creativity to solve problems	34.81	46.50	13.84	3.57	1.28
8. More autonomy in my work	8.84	22.82	36.95	20.11	11.27
9. I am used to dealing with social and economic crises	22.11	37.23	24.11	12.84	3.71
10. Argentina's constant crises don't let me make progress	50.50	30.09	10.98	5.71	2.71
<i>Collective Response to Pandemic</i>					
11. Compliance with public health measures-household	48.64	42.23	6.56	1.85	0.71
12. Compliance with public health measures-neighborhood	10.84	28.10	25.53	25.82	9.70
13. Compliance with public health measures-general society	3.99	26.96	30.53	31.81	6.70
14. Argentine people accustomed to dealing with crisis	27.39	32.81	15.26	16.69	7.85
15. Argentine people are moving ahead after the pandemic	10.13	30.53	23.54	23.39	12.41
16. I observed supportive behaviors in my neighborhood	14.69	41.94	21.40	16.55	5.42
<i>Attitudes about Vaccines</i>					
17. Getting vaccinated is a civic duty	49.50	26.39	14.55	5.56	3.99
18. The vaccines in Argentina can be trusted	27.25	40.23	23.97	4.56	3.99
19. I am vaccinated, or plan to be soon ^a	92.72				6.70

Table 3 (continued)

	Strongly Agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly Disagree (%)
<i>Government Performance</i>					
20. Satisfied with health sector	38.94	28.53	14.55	9.70	8.27
21. Satisfied with educational sector	13.12	23.40	24.96	24.82	13.69
22. Satisfied with political leadership	5.42	16.83	19.40	26.53	31.81

Note: ^a For this question the options were "yes" (92.2%), "no" (6.4%), and "other" (1.4%). Source: Own data (2021).

vaccinated soon. In open-ended survey responses, many shared their pro-vaccine sentiments:

- "I agree with the implementation of vaccines. Thanks to them, my mother, a diabetic with hypertension, who was infected with Covid, only had mild symptoms, I am thankful." (Male, 29)
- "We are going to vaccinate ourselves for those who are no longer with us." (Male, 19)
- "I wish people would respect the rights of others, for example using a facemask, respecting social distancing and other protocols, and vaccination should be mandatory. Because even if I take care of myself I am still exposed to those who believe that the pandemic is made-up. And they risk the lives of others with their beliefs and carelessness." (Female, 42)

We asked participants about their satisfaction with the performance of three areas of government during the pandemic: the health sector, the educational sector, and political leadership (Table 3, items 20–22). While 67.47% were satisfied (or strongly satisfied) with the performance of the health sector, only 36.52% expressed the same about the educational sector. Meanwhile, only 22.25% of respondents agreed (or strongly agreed) with the statement "Political leaders were capable of leading and governing during the pandemic," revealing a general perception of disapproval and indifference (Fig. 4). As some of the responses to our open-ended survey question indicate, the public discerned different parts of the state, rather than seeing it as a single entity, and saw a tension between the well-intentioned efforts of frontline personnel and the limited resources they had available:

- "While I was in the hospital [with Covid-19] I was able to observe our health system fighting relentlessly against this virus, I observed that despite the shortages of medical supplies, the goodwill of the personnel of the hospital made everything more tolerable." (Male, 41)
- "My opinion is that [the pandemic] allowed us to see the failures of the health system, it became apparent how poorly prepared the health system is in terms of infrastructure, human resources, and supplies. Nevertheless, the impeccable performance of the human resources (doctors, nurses, etc.) should be highlighted." (Female, 45)
- "The pandemic put to the test the creativity of teachers and parents to help the children, but unfortunately we also observed the inequalities in the right to receive an education. Only those who had a cell phone could study [in distance learning] ... " (Female, 56)
- "The worst experience was seeing how the current government fooled us, by stealing vaccines and at the same time, they [political leaders] did things that the public was prohibited from doing, the lesson perhaps is that this situation revealed the terrible state of our health system which has been decimated over decades thanks to terrible and corrupt governments ... " (Male, 47)

As in this last quotation, many respondents to the open-ended

Table 4

Pattern of responses to survey questions, by perceived neighborhood social capital groups (PNSC) (n = 701).

	% agree or strongly agree			Chi-square test (df = 2)	p-value
	High PNSC	Neutral PNSC	Low PNSC		
<i>Neighborhood Social Capital</i>					
1. In my neighborhood, we all know each other	100.0	0	0	n/a	n/a
<i>Personal Impacts of the Pandemic</i>					
2. My personal situation improved	23.55	17.53	17.20	6.55	0.16
3. More confident in my ability to solve problems	72.85	60.39	50.54	29.27	0.01
4. Participated in supportive initiatives	52.63	39.61	32.26	36.56	0.01
5. Learned to live with uncertainty	80.05	71.43	66.13	16.32	0.01
6. Able to move ahead with a positive attitude	63.71	53.25	49.46	24.68	0.01
7. Relied on creativity to solve problems	81.99	80.52	80.65	3.08	0.55
8. More autonomy in my work	34.90	26.62	29.57	4.65	0.33
9. I am used to dealing with social and economic crises	62.88	56.49	54.84	11.65	0.02
10. Argentina's constant crises don't let me make progress	79.78	80.52	82.26	4.53	0.34
<i>Collective Response to Pandemic</i>					
11. Compliance with public health measures-household	92.52	89.61	88.71	3.69	0.45
12. Compliance with public health measures-neighborhood	47.09	32.47	28.49	22.98	0.01
13. Compliance with public health measures-general society	32.40	31.17	27.96	5.54	0.24
14. Argentine people accustomed to dealing with crisis	62.05	61.04	55.91	3.83	0.43
15. Argentine people are moving ahead after the pandemic	46.81	38.31	30.65	16.39	0.01
16. I observed supportive behaviors in my neighborhood	65.65	54.54	40.86	39.84	0.01
<i>Attitudes about Vaccines</i>					
17. Getting vaccinated is a civic duty	78.67	75.33	70.97	4.02	0.13
18. The vaccines in Argentina can be trusted	71.47	64.29	62.37	5.55	0.06
19. I am vaccinated, or plan to be soon ^a	91.69	95.45	92.47	2.62	0.63
<i>Government Performance</i>					
20. Satisfied with health sector	70.64	63.64	64.52	7.11	0.13
21. Satisfied with educational sector	43.21	32.47	26.88	19.18	0.01
22. Satisfied with political leadership	26.32	20.78	15.59	11.34	0.01

Note: ^a For this question the options were "yes", "no", and "other", bold: significant differences. Source: Own data (2021).

question directed anger towards the government, at different levels (municipal, provincial, national) for what they viewed as hypocrisy, a failure to follow pandemic safety measures they themselves had laid down.

4.3. Neighborhood social capital and experiences of the pandemic

Table 2 shows that a majority of respondents fell into the high PNSC category. No differences were found between groups according to gender or employment situation. However, the perception of PNSC showed significant differences related to age (18–28 years and 50–60 years) and educational level categories. The pattern of responses according to PNSC group is summarized in Table 4 (with chi-square analysis) and Table 5 (logistic regression analysis), and illustrated for selected variables in Fig. 5. There was no significant variation in response to the statement "my personal situation had improved during the pandemic" according to PNSC group (Table 4, item 2). However, we did observe significant differences among PNSC groups in response to the following prompts: "I have more confidence in my ability to solve problems in my life", "I participated in initiatives to support others", "I learned to live with the uncertainty that the pandemic brought", "I could move ahead [*salir adelante*] with a more positive attitude", and "I am used to dealing with social and economic crises". In all cases, the high PNSC group was more likely to offer affirmative responses to these statements. On the other hand, the pattern of responses to the statements "I relied on my creativity to solve problems", "I have more autonomy in my work" and "Argentina's constant crises don't let me make progress," did not vary significantly in relation to PNSC (Table 4, items 7, 8, 10). By controlling for the variables of gender, educational attainment, and age, logistic regression analysis confirms that those in the high PNSC group were more likely to respond affirmatively to these statements (Table 5).

Similar results were obtained in the qualitative analysis. Among respondents with high PNSC, there were many allusions to personal growth and overcoming obstacles, but these sentiments were less frequent for the low PNSC group, while negative sentiments about government were much more frequent. For example:

- "I learned to smile and carry on every day despite all the problems I've had, with strength and dedication to keep moving forward, don't ever give up." (Male, 34, high PNSC group)
- "During the pandemic, working with and helping people with COVID-19, I realized how fragile and short life is. And I learned to value the moments one spends with their loved ones more. Because you never know when it will be the last time you kiss and hug someone you love!" (Male, 41, high PNSC group)
- "This pandemic taught me to move forward, to lose the fear of getting out of my comfort zone, to move my family forward, since my husband after many years was left without a job, and these were difficult days but I developed talents so that we will never want for anything." (Female, 37, high PNSC group)
- "The pandemic was used as a tool of social control by politicians" (Male, 38, low PNSC group)
- If we don't elect the right leaders, we'll never get out of this hole. We can't plan, [because] the government put me on pause several times, but time keeps moving on. (Male, 30, low PNSC group)

In terms of collective dimensions of response to the pandemic, we find that compliance with public health measures and supportive behaviors at the neighborhood levels showed significant differences between the groups, where the high PNSC group was the most predominant (Table 4, items 12, 16). On the other hand, there were no significant differences between PNSC groups in response to compliance with public health measures at the household and general society levels (Table 4, items 11, 13). PNSC had no effect on responses to the statement "The people of Argentina are accustomed to dealing with crisis" (Table 4, item 14). When asked about the resilience of the Argentine people during the pandemic, the high PNSC group was significantly more optimistic (Table 4, item 15). Multivariate analysis confirmed that those in the high PNSC group were more likely to respond positively to items 12, 15, and 16 (Table 5).

Attitudes about vaccines did not vary significantly based on PNSC

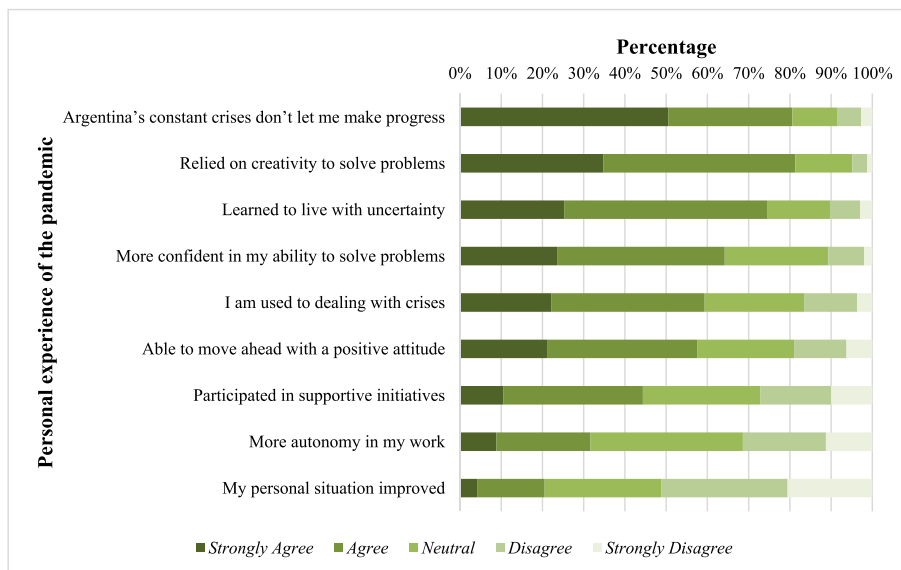


Fig. 2. Personal experience of the pandemic (n = 701) Source: Own data (2021).

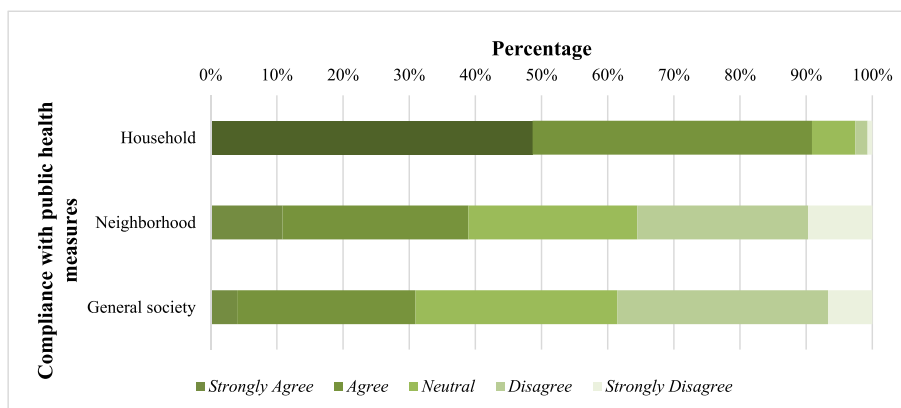


Fig. 3. Perception of compliance with public health measures at household, neighborhood, and general society levels (n = 701) Source: Own data (2021).

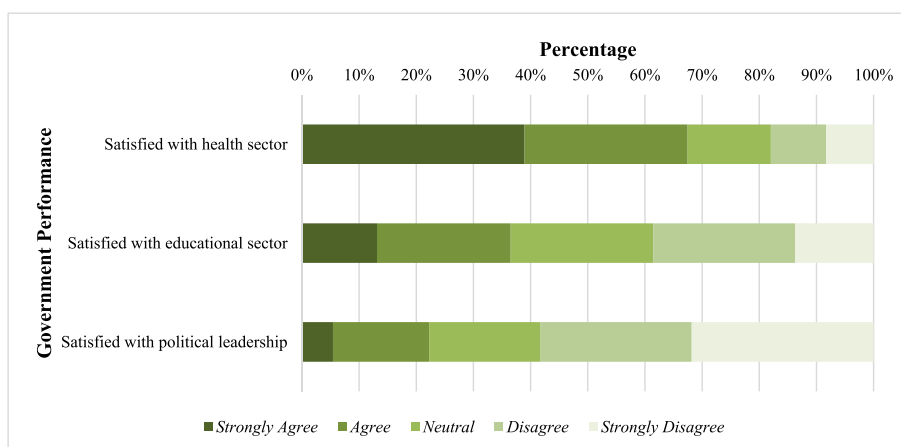


Fig. 4. Satisfaction with Government Performance (n = 701) Source: Own data (2021).

category (Table 4, items 17–19). Opinions on health sector performance did not vary among PNSC groups; however, the high PNSC group was more likely to be significantly satisfied with the educational sector and political leadership (Tables 4 and 5). As mentioned above, ratings of performance of political leaders was generally negative, but those in the

low PNSC group were even more likely to give a negative rating (Table 4, items 20–22).

Logistic regression analysis showed that high PNSC, age and education were factors associated with a better personal experience of the pandemic (items 3–6, 9), collective response to pandemic (items 12, 15,

Table 5
Multivariate logistic regression analysis. Includes only items where significant differences were found between PNSC groups using chi-square test (refer to Table 4).

	Personal Impacts				
	3. More confident in my ability to solve problems	4. Participated in supportive initiatives	5. Learned to live with uncertainty	6. Able to move ahead with a positive attitude	9. I am used to dealing with social and economic crises
	OR (CI-95%)	OR (CI-95%)	OR (CI-95%)	OR (CI-95%)	OR (CI-95%)
<i>PNSC</i>					
Low	REF	REF	REF	REF	REF
High	2.05 (1.48–2.83)***	1.88 (1.40–2.57)***	1.73 (1.21–2.45)**	1.54 (1.21–2.12)*	1.27 (0.93–1.74)
<i>Age (numeric)</i>	1.03 (1.01–1.04)***	1.02 (1.00–1.03)***	1.02 (1.00–1.03)**	1.04 (1.02–1.05)***	1.02 (1.00–1.04)**
<i>Employment</i>					
Inactive	REF	REF	REF	REF	REF
Unemployed	0.89 (0.53–1.50)	1.06 (0.63–1.78)	1.00 (0.57–1.75)	0.61 (0.36–1.02)	1.32 (0.79–2.18)
Employed	1.30 (0.86–1.98)	1.12 (0.74–1.69)	1.23 (0.78–1.93)	1.34 (0.93–2.11)	1.59 (1.06–2.37)
<i>Education</i>					
Tertiary and superior	REF	REF	REF	REF	REF
Secondary Education	1.18 (0.79–1.74)	0.86 (0.59–1.25)	1.29 (0.85–1.97)	1.81 (1.22–2.68)*	1.15 (0.79–1.68)
Primary or less	1.62 (0.95–2.77)	1.64 (0.99–2.69)	1.37 (0.77–2.42)	1.76 (1.06–2.94)*	1.21 (0.73–2.00)
	Collective Response			Government Performance	
	12. Compliance with public health measures-neighborhood	15. Argentine people are moving ahead after the pandemic	16. I observed supportive behaviors in my neighborhood	21. Satisfied with educational sector	22. Satisfied with political leadership
	OR (CI-95%)	OR (CI-95%)	OR (CI-95%)	OR (CI-95%)	OR (CI-95%)
<i>PNSC</i>					
Low	REF	REF	REF	REF	REF
High	1.92 (1.39–2.63)***	1.61 (1.18–2.20)**	2.06 (1.51–2.81)***	1.80 (1.31–2.49)***	1.45 (1.00–2.11)*
<i>Age (numeric)</i>	1.03 (1.02–1.04)***	1.02 (1.00–1.03)**	1.02 (1.01–1.03)**	1.016 (1.002–1.031)*	1.03 (1.02–1.04)***
<i>Employment</i>					
Inactive	REF	REF	REF	REF	REF
Unemployed	0.75 (0.44–1.28)	0.63 (0.38–1.06)	0.76 (0.46–1.27)	0.68 (0.39–1.17)	0.76 (0.41–1.41)
Employed	0.95 (0.63–1.43)	0.99 (0.66–1.49)	0.99 (0.66–1.49)	1.00 (0.66–1.53)	0.80 (0.49–1.23)
<i>Education</i>					
Tertiary and superior	REF	REF	REF	REF	REF
Secondary Education	1.20 (0.82–1.77)	1.52 (0.93–2.48)	0.89 (0.61–1.30)	0.67 (0.46–0.97)*	1.13 (0.72–1.79)
Primary or less	1.26 (0.77–2.09)	0.99 (0.68–1.46)	1.31 (0.79–2.17)	1.08 (0.66–1.78)	1.75 (1.00–3.07)*

Note: I: OR; CI: confidence interval; REF: reference category; ***p < 0.0001; **p < 0.01; *p < 0.05.

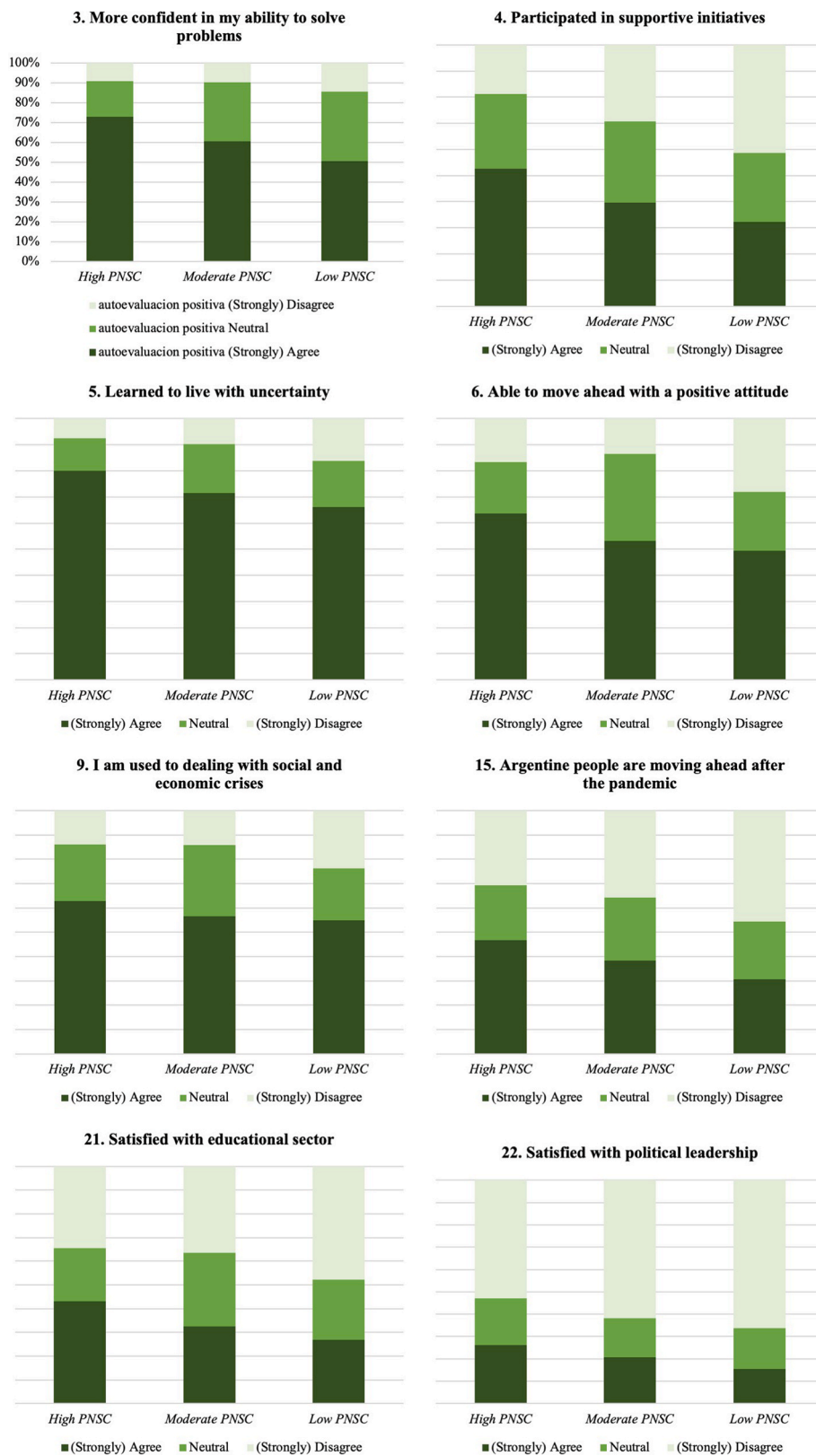


Fig. 5. Pattern of Responses in selected items by Perceived Neighborhood Social Capital Group (PNSC).

16) and government performance (items 21–22). As Table 5 shows, age was consistently correlated with positive responses (the older the respondent, the more positive the sentiment). Notably, for those variables where educational levels have a significant association, it is usually people with lower educational attainment who offered more

positive responses. For example, those with a primary- or secondary-level education were, respectively, 76% and 81% more likely to report a positive response to the prompt "I am able to move ahead with a more positive attitude," as compared to the reference group (those with some tertiary or university education). Similarly, respondents with a primary

education were 75% more likely than the reference group to profess to being satisfied with political leadership during the pandemic. (See supplementary materials for figure depicting logistic regression results.)

5. Discussion

Much of the social research on the Covid-19 pandemic emphasizes the negatives: the health impacts of the disease itself, inequities in the health and social impacts of the pandemic, social isolation, mental health problems, economic crises, polarization, and the spread of misinformation. Certainly, people in Tucumán were severely and negatively impacted by the arrival of the coronavirus disease in early 2020, as the crisis exacerbated food insecurity, unemployment, and poverty (Cordero and Cesani, 2020; 2021; INDEC, 2020).

This study puts the pandemic in a slightly different and more positive light. To be sure, the pandemic was not a positive experience for most people in Tucumán, but it was one that people coped with effectively by relying on their existing social networks and personal reserves of ingenuity. Managing restrictions, risks, and uncertainties presented opportunities for personal growth and a reevaluation of priorities. Thus, *resilience* most strongly characterizes the personal and collective response to the pandemic. Forced to change old routines, the participants in our survey, by and large, were able to draw on reserves of personal creativity and ingenuity and face those challenges. The lack of improvement in personal situations is not surprising, due to all of the problems generated by the pandemic, whether financial, in personal and family health, or mental health issues. But we observe that despite seeing a decline (or no change) in their personal situation, most still feel more optimistic about the future for having endured the pandemic crisis. As implied by the title of this paper, the Spanish expression "salir adelante" captures this attitude of personal resilience; though it translates roughly into "moving ahead," it certainly does not mean "getting ahead," i.e. increasing wealth or social status. It is really about the capability to engage competently and energetically in the struggles of everyday life, to persevere and overcome obstacles; in other words, a personal resiliency in the face of challenges. As suggested in a study conducted in the early days of the pandemic in Tucumán, expressions of patience and optimism can be viewed as coping responses, to confront an increase in anxiety, uncertainty, and stress (Quiroga et al., 2020).

Social capital helps to increase this capacity for resilience. Analyzing perceptions according to perceived neighborhood social capital, we found that personal competence to face the pandemic was significantly higher among those participants who perceived strong social ties in their neighborhoods. Those who perceived high neighborhood social capital had more optimistic and resilient attitudes in every dimension and also expressed more confidence in their neighbors to comply with public health measures and engage in supportive pro-social behaviors. Our findings are consistent with a growing body of research, both empirical and theoretical, which suggests that those who live in close-knit neighborhoods (places where the neighbors tend to know each other, and interact frequently) have fared better during the pandemic, for at least three reasons. First, in a more cohesive society there is a stronger sense of "shared fate" that increases trust, makes individuals more agreeable to make sacrifices or accept coercive public health measures (Jackson and Bradford, 2021; Reicher and Bauld, 2021). Second, when there is strong social cohesion, communities are more likely to self-organize to provide mutual aid and support for those most affected by crisis, supplementing or replacing the efforts of the government—at least for a time (Boyd and Davis, 2021; Drury et al., 2021). And third, in societies with strong social cohesion, resources (whether material or emotional) for coping are more widely available and flow more easily (Reicher and Stott, 2020). As Caballero-Domínguez, Luque-Salcedo and Campo-Arias (2021) propose, social capital is a community-level social resource that mitigates the health effects of quarantine and isolation during the pandemic.

Similar findings come from studies of response to natural disasters:

where trust and connection among neighbors is already high, people are more likely to cooperate and collaborate, for example in mutual aid efforts; participation in such efforts increases self-confidence in the ability to resolve problems and solidifies reciprocity and mutual understanding (Aldrich and Meyer, 2015; Cutter et al., 2008; Klinenberg, 2002; Ritchie and Gill, 2021). During the Covid-19 pandemic, communities around the world have shown not only a capacity for self-organization and mutual support, but also (for the most part) calm, ingenuity, and an ability to adapt to uncertainties, as opposed to the panic, disorder, and mayhem that was widely feared in early 2020 (Chen et al., 2021; Reicher and Bauld, 2021).

It is important to add a few qualifications to this sanguine interpretation, however. First, we would contend that the kind of social capital supporting most positive, prosocial efforts during the pandemic in Tucumán are of the "bonding social capital" type: that is, "the connections among individuals who are emotionally close, such as friends or family, and result in tight bonds to a particular group" (Aldrich and Meyer, 2015, p. 258). This kind of social capital is what gets mobilized first in a crisis situation, such as a natural disaster or a pandemic (Aldrich and Meyer, 2015). However, the presence of "bonding" social capital does not necessarily translate into "bridging" social capital (across differentiated social groups) or "linking" social capital (which connects citizens to those in power) (Aldrich and Meyer, 2015).

At the same time, the increased social cohesion produced by the pandemic is fragile, and somewhat fleeting. Here, the role played by the government, and particularly political leadership, is crucial. Near the start of the pandemic, public opinion surveys in Argentina showed fairly strong approval of political leaders, which can be expected in times of crisis, but this positive feeling did not last long (Quiroga et al., 2020). Solidarity can erode quickly if the sense of "shared fate", and more specifically, the sense that the government and the public are on the same team, is lost. Our qualitative analysis reinforced these findings, revealing that many of our informants pointed to specific public incidents involving government national leaders that "broke the spell" of a shared fate and damaged the public trust. This kind of distrust makes it difficult to form "linking" social capital, a key ingredient for social cohesion, especially in scenarios characterized by persistent extremes of social and economic inequality, corruption, mistrust of political leaders, and a lack of trust in institutions generally (CEPAL, 2007, 2010).

As stated at the outset, we are interested in treating the pandemic as a social and political phenomenon, not just a health crisis, and considering the value of social capital beyond how it might support public health governance. Still, we also note the strong presence of pro-social attitudes and behaviors; for example, the high level of reported willingness to comply with public health measures and the high levels of satisfaction with the state health sector indicated by participants in our survey. A large majority of those surveyed had been vaccinated, or planned to soon, while a sizable majority professed that getting vaccinated is a civic duty. These results are understandable given the local socio-historical context, including a primary health care strategy, the presence of a public health system with universal assistance and benefits that are predominantly free, and a solid culture of vaccination that is established from birth and is legitimized by state institutions, among other conditioning factors. As Galarraga Gortázar et al. (2022) suggest, in the Latin American context, with high rates of informality in the labor force, mass vaccination is a necessary step towards reactivating economies slowed by the pandemic. This makes sense in a country like Argentina, where poverty affects more than 40% of the population (INDEC, 2020).

We found that perception of compliance with pandemic control measures was very high at the household level, a bit lower when applied to neighborhood-level compliance, and much lower when framed as a question about compliance in society in general. At first glance, it seems logically impossible to have such a disparity in responses; if households actually complied as they claim to, then surely the perception of compliance at the neighborhood and general level would be higher. But

Reicher and Bauld (2021) point to a similar phenomenon in Great Britain; as they suggest, media exaggeration of failures to comply (e.g. large parties that flout social-distancing rules) shape perceptions of what is happening "out there." We would further argue that the very conditions imposed by Covid-19 restrictions (reduced travel, limited geographic range, reduced interactions with strangers) increase the role of the media in shaping perceptions of compliance. Moreover, if, as we contend, "bridging" social capital is relatively weak in Argentina, then it makes sense that compliance with public health measures would be perceived highest at the hyperlocal level, the household and neighborhood scale. Social trust does not extend as strongly to unknown others.

With all this in mind, we can see why Gelfand et al. (2021) might have classified—or perhaps mischaracterized—Argentina as a "loose" culture with weak social norms that impede an effective pandemic response. We would argue that norms and social cohesion in Tucumán are actually very tight, when considered through the lens of "bonding" social capital, while bonds and trust are weaker across differences of social class and with the political leadership. At the risk of over-generalization, we contend that people in Tucumán have tight and enduring social relationships with family, friends, and neighbors, yet may be distrustful or suspicious of people outside of their core circle, and especially disconnected from, and distrustful of, political leaders. Such a dynamic might be widespread regionally: a study by CEPAL (2010, p. 20) affirms that "the family and other primary relationships" serve as "the foundation of Latin American society" (emphasis in original), while broader social cohesion is impeded by the persistence of extreme social and economic inequality, weak civil society institutions, lack of authentic political participation, and widespread corruption and mistrust of political leaders. Thus, we consider it important to disaggregate social dynamics at different levels.

6. Conclusions

Summing up, our study reveals widespread perceptions and experiences of resilience in response to the complex crisis of the Covid-19 pandemic in Tucumán. Although few people reported improvement in their personal situation, most survey respondents reported being able to move ahead with a positive attitude, learning to live with uncertainty, relying on creativity to solve problems, and more confidence in their ability to solve problems as a result of the pandemic. The experience of the pandemic was more positive in almost every explored dimension among those participants who perceived strong social ties in their neighborhoods. Consistent with the literature on collective response to crisis, we find a reliance on "bonding" social capital that does not necessarily translate into a strengthening of social cohesion across boundaries of difference, potentially undermining efforts to build trust in others and in political leaders, post-pandemic. Overall, pro-vaccine attitudes were predominant; support for the health sector and, to a lesser degree, for the educational sector, was high; and trust in political leadership was low.

A mixed-methods approach was crucial to gaining these kinds of insights. The thematic analysis of the early stage of the project made us aware of more optimistic perspectives on the pandemic experience than we had expected, and the theme of neighborhood social capital emerged from the qualitative data. This analysis, in turn, allowed us to develop hypotheses about the importance of neighborhood-level social capital for further analysis in a more structured survey, and open-ended responses to the survey helped to further contextualize findings from statistical analysis. Based on these results, we could suggest that social capital would improve resilience, opening future lines of study in this field. In particular, more in-depth, local-level, qualitative research could enhance our understanding of how social capital is used as a resource to make communities more resilient in the face of public health emergencies and other calamities.

This study has limitations that should be mentioned. Although the survey participant profile appears to be representative of the Tucumán

metro area population, given the demographic similarities between the sample and the population, we also recognize that digital resources and the internet may be less accessible to sectors with lower socioeconomic and educational levels. This could imply an underrepresentation of most vulnerable groups in the sample due to the methodology for data collection. In addition, those with positive experiences of the pandemic may be more likely to participate in a survey in the first place (although this would be a limitation generally of much of the online survey-based social research conducted during the pandemic). Because this research was cross-sectional, causal associations between neighborhood social capital and attitudes are merely implied. Lastly, we concede that we have not sought to measure or validate a multi-dimensional construct of social capital; instead, perceived neighborhood social capital is one dimension of a larger and much-debated concept.

We should also emphasize that the timing of the study matters in the interpretation of perceptions and experiences. In September 2021, when our online survey took place, it had been approximately 18 months since the official declaration of pandemic emergency measures in Argentina, vaccines had become widely available around May of 2021, case counts were declining, and the "omicron wave" was still months into the future. In other words, although the pandemic had not ended, there was a sense that the "worst was over" and things were "returning to normal." Hypothetically, an identical survey at a different moment in time might reveal different results.

Despite these limitations, we believe that our findings constitute a robust contribution derived from a mixed-methods approach, providing new empirical findings and theory-driven interpretations to enrich the scholarly literature on the connections among social cohesion, social capital, and resilience in times of crisis, particularly in the political-economic contexts of the Global South.

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Declaration of competing interest

The authors declare they have no conflict of interest.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.healthplace.2022.102870>.

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